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## Diversity Education: Are We Preparing Teachers to Teach All Learners?

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# **DIVERSITY EDUCATION: ARE WE PREPARING TEACHERS TO TEACH ALL LEARNERS?**

**by**

**Lindi Andreasen**

**Thesis submitted in partial fulfillment  
of the requirements for the degree**

**of**

**Honors in University Studies and Departmental Honors**

**in**

**Elementary Education  
in the Department of the School of Teacher Education and Leadership**

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**Logan, UT**

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### **Abstract**

Five hundred twenty-three preservice teachers from six different preparation programs completed the diversity and multicultural perspectives portion of the Professional Teaching Knowledge and Skills Survey (PTKSS) to determine their feelings of multicultural efficacy at the end of their program and again after their first year of teaching. Statistical analysis revealed that preservice teachers rate their capability to teach diverse students as “adequate” to “well” on a 5 point Likert type scale ( $M=35.28$ , possible Range=0-50), with no significant drop in self-efficacy after one year of teaching ( $M=34.09$ ). However, individual item means did drop consistently between the preservice and inservice stages, and there were some statistically significant differences between ratings of self-efficacy depending on which preparation program participants attended.

*For all of the teachers over the years  
who have made my experience with  
schooling an absolute delight.*

## **Acknowledgements**

My introduction into the world of professional research began in the fall of 2011 as a freshman in college when I met with Dr. Sarah Clark for the first time. Back then, I really had no clue what doing research at the university level meant; I just knew I needed to get involved in order to receive the scholarship money awarded to me. Dr. Clark volunteered to take me under her wing, and now, five years later, she is still my greatest mentor. I cannot put into words how much I have learned from her—not only about the research process and writing, but also about being a teacher, a critical thinker, and an uplifting influence on those around you. She provided the quantitative data that made this study possible and guided me through the analysis of that data. Every time I left her office, I felt encouraged and optimistic about my efforts in a field which often seemed way beyond my level of expertise. Without her guidance and support, I never would have even settled on a suitable topic, let alone filled forty plus pages with comprehensible text.

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Lindi Andreasen

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## **Diversity education: Are we preparing teachers to teach all learners?**

8,908 words

### **Introduction**

The student demographics in American schools have changed dramatically in the last thirty years. In 2010, the U.S. Department of Education reported that between 1980 and 2008, the percentage of White students dropped from 80 to 66% of the total resident population of the United States. Meanwhile, Hispanics surpassed Blacks as the largest racial/ethnic group other than Whites in the U.S. (Aud, Fox, & KewalRamani, 2010). More recently, the National Center for Education Statistics (2013) revealed that White students made up only 50% of the total number of students enrolled in public schools in the United States, and that Hispanic students represented 25% of the student-body. During that same school year, 9.3% of public school students were identified as English Language Learners. Reports also demonstrate a consistent increase in the percentage of public school students eligible for free or reduced-price lunch with 38.3% during the 2000-2001 school year growing to 49.6% during the 2011-2012 school year. The Center for Public Education (Crouch, 2012) found that nearly 20% of the nation's population age five and older speak a language other than English at home. Additionally, 21.6% of children in the United States under age eighteen lived in poverty, and that 23% of students had at least one foreign-born parent. Teachers should expect, and be prepared, to teach students representing an ever-increasing amount of cultural, linguistic, and socio-economic diversity.

At the turn of the century, researchers observed that while the student population diversified, the preservice teacher population remained primarily white and middle class college students with little or no exposure to other ethnicities or social classes during their youth (Causey, Thomas, & Armento, 2000). According to a more recent profile of teachers, the number of White teachers has dropped from 91% of the teacher force in 1986 to 84% in 2011

(Feistritzer, 2011). However, this shift is minute in comparison to the shift in student population that has occurred during the same time period. A report on teacher diversity released by the Center for American Progress (Boser, 2014) stated, "The gap between teachers and students of color continues to grow. Almost every state has a significant diversity gap" (p. 2). For example, 73% of students in California are nonwhite while only 29% of teachers in that state are nonwhite. During the 2011-2012 school year, teachers in the U.S. were 82.7% White, 6.4% Black, 7.5% Hispanic, 1.8% Asian, .1% Native Hawaiian/Pacific Islander, .4% American Indian/Alaska Native, and 1% of two or more races.

This gap is concerning because research tells us that teachers tend to formulate their opinions of students based on "the accumulation of life experiences with and established biases about persons different from themselves, largely based on characteristics of race, ethnicity and gender" (DeCastro-Ambrosetti & Cho, 2011, p. 54). Moreover, reports from all grade levels show larger percentages of Black, Hispanic and American Indian/Alaska Native students are scoring consistently below grade level in reading and mathematics (Aud, Fox, & KewalRamani, 2010). In addition, Sleeter (2001) found that while White preservice teachers expect to teach children of diverse cultural backgrounds, as a whole they bring very little cross-cultural background, knowledge or experience to the job. Sleeter also suggested that white teachers bring a limited understanding of discrimination (i.e. racism) and narrow visions of multicultural teaching to the job.

Many researchers have examined how best to help teachers overcome cultural barriers and to prepare them to instruct diverse populations. Teachers' beliefs and knowledge about diverse groups have been identified as keys to improving instruction for diverse learners. For example, Kumar and Hamer (2013) found that preservice teachers with less prejudice towards

poor and minority students are more likely to embrace instructional strategies (i.e. collaboration, adaptation of lesson plans to be multicultural) that benefit diverse populations. Causey et al. (2000) concluded that a “well-articulated program with attention to diversity issues over several semesters offers the best hope for moving preservice teachers toward greater cultural sensitivity and knowledge and toward strength and effectiveness in culturally diverse classrooms” (p. 43). DeCastro-Ambrosetti and Cho (2011) included instruction on culturally relevant teaching as an essential component of successful teacher preparation programs. Multiple studies support the notion that teacher preparation programs can indeed positively shape preservice teachers’ attitudes toward diverse students and recommend that they place emphasis on multicultural education and field experiences focusing on cultural and linguistic diversity especially at the latter end of their programs (Bodur, 2012; Kumar & Hamer, 2013). In other words, teacher preparation programs play a key role in the development of positive teacher self-efficacy about how to support and provide high quality instruction to diverse students.

The purpose of the current study was to describe the different approaches a variety of teacher preparation programs have taken to prepare their preservice teachers to teach diverse learners and then to examine the self-efficacy ratings of the preservice teachers graduating from these programs on a variety of instructional tasks related to teaching diverse students. The findings are intended to provide teacher preparation programs with insight and ideas as to how they may better prepare preservice teachers to be efficacious instructors of ethnically, racially and linguistically diverse students.

### **Theoretical Framework**

In 1977, Bandura wrote an article titled “Self-Efficacy: Toward a Unifying Theory of Behavioral Change”. Bandura (1977) proposed a social cognitive theory in which he explained

the importance of “expectations of personal mastery” (p. 193), or perceived self-efficacy, in relation to coping skills. He stated, “The strength of people’s own effectiveness is likely to affect whether they will even try to cope with given situations” (p. 193). In other words, people strive to avoid situations that make them uncomfortable, fearing that their coping skills are inadequate to bring success under the circumstances. On the other hand, people tend to embrace activities and proceed confidently when faced with situations they see themselves capable of handling successfully (Bandura, 1977). Bandura continued to expand on his 1977 construct of self-efficacy (Bandura, 1986, 1993, 1996, 1997) relating it to specific contexts including school teaching.

Over the last thirty years, researchers have consistently found that a teacher’s sense of self-efficacy influences student academic achievement, attitude and affective growth in meaningful ways (Caprara, Barbaranelli, Steca, & Malone, 2006; Tschannen-Moran, Hoy, & Hoy, 1998). Tschannen-Moran, Hoy, and Hoy (1998) embarked on a comprehensive analysis of twenty-one years’ worth of literature examining teacher efficacy in hopes of bringing some clarity to the construct and to improve its measurement. The current study is framed by the resulting definition: “Teacher efficacy is the teacher’s belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context” (p. 233). As suggested by the phrases “specific teaching task” and “particular context”, teachers’ feelings of self-efficacy are not the same across all teaching situations or settings (Tschannen-Moran, Hoy, and Hoy, 1998; Bandura, 1997). One teacher may feel completely confident teaching math to first graders while simultaneously feeling wholly inadequate when faced with the task of teaching science to fourth graders. Likewise, a teacher may have high teacher self-efficacy when envisioning a classroom full of monolingual White

children and very low teacher self-efficacy when faced with a classroom filled with children of multiple races, several of whom are learning English for the first time as a second language.

### **Literature Review**

As student populations have diversified and teachers' preparedness to instruct them has been called into question, numerous studies have sought to explore and explain preservice teachers' attitudes and beliefs about teaching students different from themselves.

#### **Measuring Teacher Self-Efficacy**

Guyton and Wesche (2005) reviewed a variety of scales and surveys that have been used to measure teachers' knowledge about, understanding of, attitudes toward, and skills in multicultural education such as the *Vega Attitude Inventory* (Martin & Koppleman, 1991), the *Multicultural Competency Identification Inventory* (Campbell & Farrell, 1985), and the *Multicultural Teaching Concerns Survey* (Marshall, 1992). Guyton and Wesche noted that the vast majority of studies focused on teachers' attitudes about multicultural education and advocated for the importance of measuring not only multicultural attitudes, but also multicultural efficacy, stating, "An attitude or belief does not necessarily mean that a teacher can incorporate the attitude into classroom action" (pg. 25). They chose to focus on "multicultural efficacy", defining it as confidence that one can effectively teach students in a multicultural setting, and created a 35-item instrument with subscales measuring experience, attitude and efficacy using a four-point Likert type scale to measure it. Sample items from the efficacy subscale include: "I can provide instructional activities to help students to develop strategies for dealing with racial confrontations"; "I can develop instructional methods that dispel myths about diverse groups"; "I can help students examine their own prejudices"; and "I can get students from diverse groups to

work together” (pp.28-29). Since its development, many studies have used the *Multicultural Efficacy Scale* to evaluate preservice teachers’ preparedness to instruct diverse learners.

For example, Nadelson et al. (2012) used the *Multicultural Efficacy Scale* (see Guyton & Wesche, 2005) to determine the levels of multicultural attitudes and efficacy of eighty-eight preservice teachers and how those levels may be related to the number of college-level courses taken and the personal characteristics and worldviews of those preservice teachers. Data analysis showed that the sample of preservice teachers surveyed had an upper level of average multicultural attitude score (on a possible range of 0-28, with scores of 16-24 representing the average rating) and an average level of multicultural efficacy (on a possible range of 0-80, with scores of 55-66 representing the average rating). The number of college courses taken was significantly correlated with multicultural attitude, meaning that attitudes toward multicultural situations became more positive the longer the preservice teachers were in college. Moreover, the data analysis also showed a positive relationship between multicultural efficacy and multicultural experiences, indicating that the more personal experience each preservice teacher had with diversity, the higher sense of multicultural efficacy that preservice teacher possessed as well.

Guyton and Wesche’s *Multicultural Efficacy Scale* is a valuable measure of teachers’ feelings of preparedness and self-efficacy to teach diverse learners, but instruction of diverse learners is complex and involves a variety of attitudes and tasks. Other researchers have developed scales to measure the self-efficacy of teachers regarding some specific aspects of teaching students from diverse backgrounds. One such scale is the *Culturally Responsive Teaching Self-Efficacy Scale* (Siwatu, 2007). Siwatu defined culturally responsive pedagogy as a four-pronged approach to instruction that (1) uses students’ cultural knowledge and experiences

to facilitate teaching and learning, (2) strives to design environments that are culturally compatible with students' own cultural orientations, (3) uses a variety of assessment techniques, and (4) helps students understand the mainstream culture and function in it while also encouraging them to maintain their native cultures and languages (pp. 1086-1087).

Using his newly developed *Culturally Responsive Teaching Self-Efficacy Scale*, Siwatu (2007) surveyed 275 preservice teachers enrolled in two different preparation programs in the Midwest. The preservice teachers were asked to rate how confident they were in their ability to perform a variety of culturally-responsive-teaching tasks on a scale of 0 (no confidence at all) to 100 (completely confident). The scale consisted of forty items. Some sample items from the scale are: "use the interests of my students to make learning meaningful for them", "model classroom tasks to enhance English Language Learners' understanding", and "use examples that are familiar to students from diverse cultural backgrounds" (p. 1093). Data analysis of responses revealed that the preservice teachers' overall culturally responsive teaching self-efficacy ratings ranged from 2270 to 3970, indicating average to high feelings of self-efficacy about completing tasks specific to instruction of diverse learners. Individual item means suggested that participants were most confident in their ability to develop positive, personal relationships with their students and help them feel like important members of the classroom, and least confident about their ability to communicate with English Language Learners. Since its development the *Culturally Responsive Teaching Self-Efficacy Scale* has been used in a variety of studies.

For example, Frye, Button, Kelly & Button (2010) used Siwatu's *Culturally Responsive Teaching Self-Efficacy Scale* to measure the impact of an elementary literacy methods class infused with culturally responsive teaching on participants' own confidence in their ability to employ those techniques when instructing diverse students. The participants in the study were

preservice teachers enrolled in the elementary literacy methods class during one semester at a research university in the Western United States. Faculty members worked with the participants during the literacy methods classes and at their practicum sites to introduce and model culturally responsive reading and writing instruction. As part of the treatment, participants kept journals. They completed the *Culturally Responsive Teaching Self-Efficacy Scale* at the beginning and end of the semester. Comparison of the pre and post-test responses revealed considerable growth in participants' overall confidence in their ability to be culturally responsive to their students. Individual item means showed that participants felt most efficacious about their ability to build a sense of trust in their students and help them feel like valued members of the classroom, while two of the four lowest ratings were on items related to meeting the needs of English Language Learners (pp. 14-15)

While Siwatu and others focused their studies on teachers' self-efficacy to instruct diverse students in a culturally responsive manner, Olson and Jiminez-Silva (2008) narrowed their research to studying preservice teachers' self-efficacy about teaching linguistically diverse students, or English Language Learners. In a follow up study, Jiminez-Silva (2012) used the same survey to question 197 preservice teachers in one preparation program about their self-efficacy in regards to working with English Language Learners after taking the endorsement course titled Structured English Immersion. Using a four-point Likert-type scale ranging from "very" to "not at all", the preservice teachers rated how confident they perceived themselves to be in nine areas related to teaching English Language Learners. Some of those areas were: "confidence that they are able to assess ELLs' language proficiency and needs"; "confidence in strategies they learned to help ELLs' language acquisition and content learning in English"; and "in meeting both the social and academic needs of all their students" (p. 17). The majority of



preservice teachers reported feeling somewhat or very confident/satisfied about their ability to work with English Language Learners in the future. Of the nine specific areas included on the survey, the most students (67%) felt very confident about their knowledge of the content covered in the endorsement courses, while only 37% of students felt very confident about their ability to assess the needs/proficiency of English Language Learners (p. 21).

Regardless of the instrument used or aspect of teaching diverse learners being measured, there is plenty of evidence to suggest that treatments aimed at improving preservice/in-service teachers' attitudes towards diverse learners and their self-efficacy to successfully instruct them—whether the treatments be required multicultural education courses, an urban field placement, professional development workshop, etc.—generally lead to positive changes in teachers' attitudes toward diverse learners and self-perceptions about their ability to instruct them effectively (Fitchett, Starker & Salyers, 2012; Frye et al., 2010; Lastrapes & Negishi, 2012; Mitchell, 2009; Olson & Jiminez-Silva, 2008; Tucker et al., 2005).

For example, Lastrapes and Negishi (2012) surveyed forty-six preservice teachers to discover whether preservice teachers become more efficacious in teaching culturally diverse learners after having an initial field experience in an urban school. The preservice teachers were enrolled in a course titled Introduction to Diversity for Educators which included a requirement to spend eighteen hours tutoring in an urban elementary or high school. The preservice teachers were asked to complete the *Inventory of Cross-Cultural Sensitivity* (Cushner, 2006) and the *Culturally Responsive Teaching Self-Efficacy Scale* (Siwatu, 2007) both at the beginning and end of the semester. The researchers found that the preservice teachers rated themselves significantly higher on the culturally responsive teaching self-efficacy scale after their field experience than before. They concluded that the initial field experience with diverse learners helped the

preservice teachers grow in cultural sensitivity and self-efficacy, develop the ability to understand perspectives beyond their own, and become more open to differences in other.

In another study, Tucker, Porter, Herman, Ivery, Mack and Jackson (2005) interacted with practicing teachers to raise their self-efficacy for working with culturally diverse children. Using a treatment-control group design, they collected data on general teacher self-efficacy, culturally sensitive teacher self-efficacy, and *Quick Discrimination Index* scores from sixty-two teachers representing six elementary schools which all received a "D" grade on statewide comprehensive assessment of student performance. The treatment group attended a six-hour workshop based on Self-Empowerment Theory (see Tucker, 1999). The teachers were taught about the importance of cultural sensitivity and how to empower their students with the skills necessary to become successful in school regardless of the child's external conditions (Tucker et al., 2005). Participants in the workshop reported higher self-efficacy on the post-test than teachers in the control group. The treatment was especially effective in promoting culturally sensitive teaching self-efficacy (Tucker et al., 2005).

With similar goals to the study of Tucker et al., Mitchell (2009) found success when working with seven teachers from various educational setting in southern Texas. Participants in the study completed the *Multicultural Teacher Efficacy Scale* (see Guyton & Wesche, 2005) before treatment and again three months afterward. The treatment consisted of a six-hour workshop where teachers were encouraged to explore their own cultural identity and identify how they used that awareness of self to teach culturally diverse students and also included various assignments such as a seven-minute autobiography, workshop evaluation, and at least ten journal entries in the three months following the workshop. Results from the paired samples t-test revealed that participant ratings of multicultural teacher efficacy increased significantly from

pre to post-survey. In addition, Mitchell reported that as the participants became more conscious of their own cultural identity, they became more aware of culture around them, identified strategies useful in teaching culturally diverse students, demonstrated increased multicultural competence and recognized the importance of teacher efficacy in themselves.

### **Changing Teacher Self-Efficacy Over Time**

While treatments do seem to have positive effects on teachers' attitudes and self-efficacy about teaching diverse learners, the research literature also indicates that feelings of self-efficacy change over time, increasing and decreasing depending on teachers' experiences with diverse learners and exposure to multicultural content and theory (Causey et al., 2000; Gao & Mager, 2011; Gülru Yüksel, 2014; Hoy & Spero, 2005; Settlage, Southerland, Smith & Ceglie, 2009).

Gao and Mager (2011) surveyed 216 preservice teachers from all seven phases of one teacher preparation program using four questionnaires that gathered information on demographics, sense of teacher self-efficacy, attitudes towards inclusive education, and beliefs about diversity. Findings revealed that participants in all phases of the program generally showed positive teacher efficacy, agreeable attitudes towards inclusive education, and favorable beliefs of diversity. However, personal teaching efficacy did increase with each cohort year while general teacher efficacy fluctuated depending on the experience preservice teachers underwent (e.g. practicum). The researchers concluded that preservice teachers' perceived sense of efficacy, attitudes toward inclusion, and their beliefs about school diversity are positively associated with each other, which means preservice teachers with high feelings of efficacy may be more willing to accommodate the needs of diverse learners.

In another study, two teachers were interviewed three years after the completion of their teacher preparation program. As preservice teachers, both women met in class for six weeks,

interned in urban schools for three weeks and met again with their class for one week following the field experience. Coursework included readings and structured discourse about diversity, an autobiographical narrative, attendance at multicultural events, action plans for increasing knowledge about and experiences with diversity, a journal of field experiences, and a post-experience essay assessing their own growth. An in-depth analysis of the written assignments indicated that the program positively influenced both women's beliefs about diverse students. However, three years into teaching, one participant was acting on the diversity education she received during the teacher preparation program, having maintained her restructured thoughts. The other participant did not maintain the restructured thoughts she expressed in her post-treatment essay (Causey et al., 2000).

Gülru Yüksel (2014) traced changes in preservice English as a foreign language teachers' sense of efficacy in a longitudinal study using a version of the Teachers' Sense of Self-Efficacy Scale (see Tschannen-Moran & Woolfolk-Hoy, 2001). The survey was administered to forty preservice teachers prior to any experience in schools, again after one semester of conducting school observations (four hours per week), and a third time after one semester of student teaching (six hours per week). Results showed that the preservice teachers' sense of self-efficacy decreased from before observations to after observations and then increased to a mean slightly higher than the original (before observations) between after observations and after student teaching. These results suggested that "efficacy beliefs are in a state of flux...New experiences and new challenges disrupt their pre-existing beliefs and force them to reassess their capabilities" (Gülru Yüksel, 2014, p. 6).

Gülru Yüksel's statement reinforces the findings of Hoy and Spero (2005) who measured preservice teachers' sense of self-efficacy at the beginning and end of their teacher preparation

program and then again after their first year of teaching. Hoy and Spero's findings revealed that teacher efficacy rose during teacher preparation and student teaching, but fell with the new experience of being head teacher alone in a classroom during the novice year.

### **Teacher Training Experiences**

Authentic field experiences working with diverse learners are crucial in preparing pre-service teachers to teach all learners (Bodur, 2012; Lastrapes & Negishi, 2012). Bodur (2012) investigated the impact of multicultural coursework and fieldwork during a teacher preparation program on prospective teachers' beliefs and attitudes about teaching culturally and linguistically diverse students. Using the *Teacher Multicultural Attitude Survey*, he surveyed 52 preservice teachers after their first semester in the program before they had taken any classes on multicultural education and 36 preservice teachers in their third semester of the program after they had experienced both coursework and fieldwork focused on multicultural education. In addition, Bodur interviewed eight students—four from each stage in their program. Though all the preservice teachers' beliefs about culturally and linguistically diverse students were generally positive, third semester preservice teachers scored significantly higher than first semester preservice teachers on the attitude survey. The qualitative analysis of the interviews further revealed that coursework raised awareness about diversity and multicultural education, but coursework combined with field experience with students of different cultural and linguistic backgrounds “adds valuable knowledge of what to do and self-reflective awareness to do it” (p. 52). The most important finding in relation to the development of teacher efficacy for instructing diverse populations is that after field experience, the third semester students saw factors contributing to diverse students' poor academic performance as “issues upon which the teacher

could act” (p. 53) rather than the variables outside of teacher control that the first semester preservice teachers pointed out (*e.g.* lack of care at home, language barrier).

In summary, the research literature on teachers’ self-efficacy about effectively carrying out instructional tasks related to teaching diverse learners is suitably diverse itself in methodological approach and topical focus. While there is an abundance of literature on both self-efficacy and diversity in schools, the focus of the review was on studies that measured the self-efficacy of teachers when asked about some aspect specific to teaching diverse learners rather than remaining in the broader spheres of teacher efficacy or attitudes about diversity in general. In an effort to focus the research study, emphasis was given to racial, ethnic and linguistic diversity. Several themes emerged in the literature: 1) Treatments during preparation programs, or otherwise, generally led to positive changes in teachers’ attitudes toward diverse learners and teachers’ self-perceptions about their ability to instruct them; 2) Feelings of self-efficacy changed over time, increasing and decreasing depending on teachers’ experiences with diverse learners and exposure to multicultural content and theory; 3) Authentic field experiences working with diverse learners are crucial in preparing preservice teachers to teach all learners.

The current study filled two specific gaps in the research literature on this topic. First, this study examined preservice teachers’ feelings of preparedness and self-efficacy to meet the needs of diverse learners across multiple teacher education programs. Of the twenty studies presented in the review of literature, only two used data collected from more than one teacher preparation program (Siwatu, 2007; Bakari, 2003). Second, the current study examined preservice teachers’ feelings of preparedness and self-efficacy both before and after one year of teaching. The majority of the research studies examined included participants who were at the preservice stage (sixteen studies—*e.g.* Jamil, F. M., Downer, J. T., & Pianta, R. C., 2012) OR at

the inservice stage (two studies—i.e. Mitchell, 2009; Tucker et al, 2005), but there is very limited research that examines teacher perceptions as they move from one teaching stage to the next. In fact, only two studies were found that did attempt to gather information from the same participants both during their preparation programs and after they became inservice teachers (Causey et al, 2000; Hoy & Spero, 2005). Hoy and Spero investigated teacher efficacy in general, while Causey, Thomas and Armento gathered qualitative data on how preservice teachers felt about teaching diverse students during their preparation program and again three years into their careers. The current study analyzes quantitative data on preservice teachers feelings of self-efficacy about teaching diverse students collected at the conclusion of their preparation programs and again after one year of teaching. This information would prove helpful to teacher education programs seeking program improvement recommendations in the specific area of meeting the needs of diverse learners.

### **Research Questions**

The goals of the current study were to assess the levels of multicultural efficacy of preservice teachers from a variety of preparation programs and to determine if the diversity requirements of their programs made a difference in their feelings of efficacy. Another goal of the study was to discover what changes occurred in the preservice teachers' feelings of multicultural efficacy after one year of teaching. With these goals in mind and based on the literature review, the following research questions were developed to guide the investigation:

- (1) How do teacher preparation programs organize coursework and field experiences to prepare preservice teachers to meet the needs of diverse learners?
- (2) How do teachers at the preservice and inservice stages rate their feelings of preparedness and self-efficacy to meet the needs of diverse learners?

- (3) Do preservice teachers vary in their perceptions of preparedness and self-efficacy to meet the needs of diverse learners based on the teacher preparation program they attended?
- (4) Do preservice teachers' ratings of preparedness and self-efficacy to meet the needs of diverse learners change after one year of teaching in an elementary school classroom?

In accordance with the literature reviewed, it was hypothesized that preservice teachers attending programs with more—and more specific requirements (i.e. an obligatory TESOL minor)—regarding preparation for teaching diverse students would have higher levels of multicultural efficacy at the end of their program. It was also predicted that levels of multicultural efficacy would decrease after facing the reality of diverse classrooms during the first year of teaching, except for those preservice teachers who attended preparation programs that placed preservice teachers in field placements with highly diverse student populations would produce preservice teachers whose feelings of efficacy were maintained through the novice year.

### **Method**

Data were collected from preservice teachers attending six different preparation programs in a Western state in the United States. All teacher candidates from the six programs were invited to complete a survey asking them to rate their perceived ability to perform a variety of teaching tasks divided into five categories each with its own subscale: general knowledge and skills, diversity and multicultural perspectives, reading, mathematics, and assessment. The current study focused only on the responses to the diversity and multicultural perspectives subscale of the survey. Participants were asked to complete the diversity and multicultural perspectives subscale at the end of their respective teacher preparation programs, and then again after their



first year of teaching full-time in an elementary school in the state where this study was conducted.

Program websites and faculty were consulted to learn basic characteristics and requirements of each of the six programs. The number of multicultural education and diversity courses required by each program, whether or not an endorsement to teach English as a Second Language (ESL) was required or embedded in the program, who taught the diversity courses, and if there was a specific effort to place preservice teachers in classrooms populated by diverse learners when making student teaching placements were topics of special interest in relation to the research questions.

### **Participants**

The participants ( $N = 523$ ) were 2005-2006 graduates of the six teacher preparation programs. Participation was voluntary and the demographic data collected indicated participants were predominately young (15% were 18-21 years old, 54% were 22-25 years old, 13% were 26-30 years old, 10% were 31-40 years old, and 6.7% were 41-55 years old), White (97% White, 2% Hispanic, 0.7% American Indian or Alaskan Native, 0.2% Asian, 0.1% Native Hawaiian or Pacific Islander), and female (93% female, 7% male).

After participants had completed one year of teaching, another copy of the survey was sent to all original participants who had secured a full-time teaching job after graduation from their programs. One hundred sixty-two inservice teachers responded to the second survey and their answers were used in the inservice teacher data analysis ( $N = 162$ ).

### **Instrumentation**

The data for this study were collected using the diversity and multicultural perspectives subscale of the Professional Teaching Knowledge and Skills Survey (PTKSS). The PTKSS

(Clark, Byrnes & Sudweeks, 2014) was based off of the Total Quality Partnerships Teacher Survey used in a longitudinal study done in Ohio to analyze the experience of preservice teachers statewide (see Lasley, Siedentop, and Yinger, 2006). The scale was selected for use because it had been previously used to evaluate multiple preparation programs at once. An analysis of reliability was conducted on the PTKSS to ensure internal consistency among the items on individual scales. All of the scales in the analysis met the criteria set by Nunnally (1978) of having a reliability coefficient of 0.7 or higher. The minimum coefficient for preservice data was .93, and the minimum coefficient for inservice data was .82.

The original survey prompt read, "How prepared are you to do the following?" (see Lasley, Siedentop, and Yinger, 2006). It was altered slightly to read, "How well can you do the following?" to ensure that the questions were applicable to both preservice and inservice teachers. The alterations were then reviewed and approved by teacher education experts. The diversity and multicultural perspectives portion of the survey consisted of 10 items naming teaching tasks that are specific to supporting the learning of diverse students. Participants were asked to respond to the prompt, "How well can you do the following?", using a 5-point Likert-type scale where 1 = not at all, 2 = poorly, 3 = adequately, 4 = well, and 5 = very well. Sample items from the diversity and multicultural perspectives subscale of the PTKSS include the following: "How well can you prepare students to be engaged citizens in a democracy?", "How well can you help parents and families to better support their child's learning?", and "How well can you teach in ways that support students learning English as a second language?".

### **Data Analysis**

Data analysis included descriptive statistics to determine any patterns among overall scale means and item means at both preservice and inservice stages. Inferential statistics

included a one-way between subjects ANOVA test to determine if there were any differences between programs, a Tukey post hoc test was used to determine how individual pairs of programs compare to each other, and a paired samples t-test was used to determine any changes as teachers moved from the preservice to inservice stages of teaching.

## **Results**

The first research question asked, "How do teacher preparation programs organize coursework and field experiences to prepare preservice teachers to meet the needs of diverse learners?" Both similarities and differences were found among the programs. For example, Program A (N=158) required that all elementary education majors work toward the TESOL K-12 minor which resulted in earning an ESL endorsement. Five courses were required covering content regarding the foundations of Multicultural Education; second language acquisition; family, school, and community partnerships; and instructional design and assessment for diverse learners. Courses were taught by a combination of faculty and adjunct professors. The first four weeks of student teaching, preservice teachers were intentionally placed in a classroom with many English Language Learners in order to fulfill the requirements of the TESOL minor.

Program B (N=26) required that preservice teachers take one course focused on the education of diverse populations. The purpose of the course is to give preservice teachers a comprehensive overview of multicultural education. Preservice teachers in program B had the option to pursue an ESL endorsement.

Program C (N = 68) required all students in the elementary education program to take one course on the foundations of multicultural education. Courses with a focus on student diversity were taught by a combination of tenured faculty, adjunct professors and Ph.D. students. The ESL endorsement was an option for preservice teachers who chose it as an emphasis, and

field placements were made without any attention to the level of diversity present in the classrooms where preservice teachers were placed.

The course requirements for elementary education majors at Program D (N = 111) included one course on the foundations of education which included discussion of different kinds of diversity and how they impact schools. Other courses focusing on multicultural education and second language acquisition were offered as some of many courses in a list of electives, and the ESL endorsement was an option for undergraduates as well. These courses were taught by a combination of tenured faculty, adjunct professors and Ph.D. candidates. The presence of diversity in the classroom was not considered when placing preservice teachers for their student teaching experience.

Program E (N = 105) required all preservice teachers regardless of emphasis to take three courses focused on cultural and linguistic diversity. One focused on the foundations of multicultural education, another on second language acquisition, and the third on differentiation for all learners. Courses were taught by adjunct professors. An ESL endorsement was only available to graduate students in the education program. Student teaching placements were made without consideration of student diversity in the schools where preservice teachers carried out their culminating field experiences.

Program F (N = 55) included one course with an emphasis on teaching diverse populations that all preservice teachers were required to take in the second year of their elementary education program. Depending on the section, the course was taught by both faculty members and adjunct professors. Preservice teachers in Program F had the option to pursue and ESL endorsement or an emphasis in multicultural education. Student teaching placements were organized in such a way that for at least one block in the two-block field experience preservice

teachers were placed in one of the schools known by the program to be more diverse than other placement sites.

A summary of the programs can be found in Table 1 below. After examination of Program B's website and communication with faculty, some information remained unavailable. This lack of information is reflected by blank spaces in the table.

Table 1 *Characteristics of Teacher Preparation Programs*

Teacher Preparation Program	Number of Required Courses with Emphasis on Teaching Diverse Students	ESL Endorsement	Classes taught by...	Experience with Diverse Students during Student Teaching
A	5	Required for undergraduates	Faculty, Adjunct Professors	Intentional 4-week placement in classroom with ELLs
B	1	Available/Optional for undergraduates		
C	1	Available/Optional for undergraduates	Faculty, Adjunct Professors, Ph.D. Students	No system for ensuring experience with Diverse students.
D	1	Available/Optional for undergraduates	Faculty, Adjunct Professors, Ph.D. Students	No system for ensuring experience with Diverse students.
E	3	Unavailable to undergraduates; Masters Program only	Adjunct Professors	No system for ensuring experience with diverse students.
F	1	Available/Optional for undergraduates	Faculty, Adjunct Professors	At least one block in a school known to have higher levels of diversity.

The second research question asked, "How do teachers at the preservice and inservice stages rate their feelings of preparedness and self-efficacy to meet the needs of diverse learners?" The overall scale mean for preservice teachers on the Diversity and Multicultural Perspectives self-efficacy scale was 35.28. The possible range was 0-50. According to the five-point Likert type scale, this means that in general preservice teachers ranged from "adequately" to "well prepared" to teach diverse students. Individual item means revealed that the preservice teachers reported feeling most efficacious in their ability to use community resources to create a multicultural curriculum ( $M=4.84$ ,  $SD=.42$ ) and equally so in their ability to implement strategies to help students from different cultures interact positively with each other ( $M=4.84$ ,  $SD=.44$ ). Those two items reflected the highest means and the lowest standard deviations of the question set. The preservice teachers rated themselves as third best at preparing student to be engaged citizens in a democracy ( $M=4.58$ ,  $SD=.70$ ).

Preservice teachers reported feeling the least efficacious about their ability to develop a curriculum that includes perspectives, experiences, and contributions of different cultural groups ( $M=3.49$ ). In fact, that was the only item where the mean fell below 4.0 (4.0 represents "well" on the likert type scale used) though it was also the item with the highest standard deviation ( $SD=.94$ ) indicating there was a lot of variance in this response. The second lowest item mean revealed that preservice teachers are also a bit nervous about supporting students who are learning English as a second language ( $M=4.00$ ,  $SD=.73$ ). The third lowest mean ( $M=4.18$ ,  $SD=.89$ ) recorded was the item related to using knowledge about linguistic differences to create learning opportunities for students. A complete list of individual item means can be seen in Table 2.

Table 2 *Preservice teachers' individual item means*

Item	<i>M</i>	<i>SD</i>
1. Prepare students to be engaged citizens in a democracy.	4.58	.70
2. Help parents and families to better understand their children and support their learning.	4.23	.84
3. Implement strategies to help students from different cultures interact positively with each other.	4.84	.44
4. Use community resources to create a multicultural curriculum.	4.84	.42
5. Work with parents and families to help me understand students and support their learning.	4.54	.88
6. Develop a curriculum that includes perspectives, experiences, and contributions of different cultural groups.	3.49	.94
7. Teach in ways that support students learning English as a second language.	4.00	.73
8. Address the needs of students from diverse cultural backgrounds.	4.49	.63
9. Encourage students to see, question, and interpret ideas from diverse perspectives.	4.54	.66
10. Use knowledge about linguistic differences to create learning opportunities for students.	4.18	.89

The overall scale mean for inservice teachers on the Diversity and Multicultural Perspectives self-efficacy scale was 34.09—which was between adequately and well prepared. However, individual item scores were not reported above  $M=3.82$ . According to individual item means, inservice teachers felt most efficacious in their ability to work with parents and families to help themselves understand students and support their learning ( $M=3.82$ ,  $SD=.96$ ), prepare students to be engaged citizens in a democracy ( $M=3.78$ ,  $SD=.99$ ), and encourage students to see, question, and interpret ideas from diverse perspectives ( $M=3.76$ ,  $SD=1.09$ ).

Inservice teachers rated themselves on the lower end of the Likert scale when asked about their ability to teach in ways that support students learning English as a second language ( $M=2.73$ ,  $SD=1.72$ ), although that was also the item with the highest standard deviation. They also reported a lower sense of preparedness and self-efficacy for using knowledge about linguistic differences to create learning opportunities for students ( $m=3.00$ ,  $SD=1.42$ ) and

addressing the needs of students from diverse cultural backgrounds ( $m=3.16$ ,  $SD=1.45$ ). See the complete list of individual item means in Table 3.

Table 3 *Inservice teachers' individual item means*

Item	<i>M</i>	<i>SD</i>
1. Prepare students to be engaged citizens in a democracy.	3.78	.99
2. Help parents and families to better understand their children and support their learning.	3.71	.86
3. Implement strategies to help students from different cultures interact positively with each other.	3.36	1.34
4. Use community resources to create a multicultural curriculum.	3.28	1.20
5. Work with parents and families to help me understand students and support their learning.	3.82	.96
6. Develop a curriculum that includes perspectives, experiences, and contributions of different cultural groups.	3.40	1.00
7. Teach in ways that support students learning English as a second language.	2.73	1.72
8. Address the needs of students from diverse cultural backgrounds.	3.16	1.45
9. Encourage students to see, question, and interpret ideas from diverse perspectives.	3.76	1.09
10. Use knowledge about linguistic differences to create learning opportunities for students.	3.00	1.42

The third research question asked, "Do preservice teachers vary in their perceptions of preparedness and self-efficacy to meet the needs of diverse learners based on the teacher preparation program they attended?" A one-way between subjects ANOVA was conducted to compare the possible influence of teacher preparation programs had on preservice teachers' feelings of preparedness and self-efficacy to teach diverse students. Findings from the inferential statistical analyses revealed that there are statistically significant differences in preservice teachers' feelings of self-efficacy on the Diversity and Multicultural Perspectives scale depending on which teacher preparation program individuals attended [ $F(5, 517) = 18.078$ ,  $p = .00$ ]. This means that some programs are producing preservice teachers who feel more prepared and capable of teaching diverse students when compared to participants from other programs. A Tukey post hoc test was used to compare the scores of participants from one preparation program



to the others. Table 4 lists each program with its overall mean score. The test revealed that there were no significant differences between programs A, C, D, or F. However, those four programs did differ significantly from programs B and E. The difference between programs B and E was not statistically significant. The partial eta squared effect size was used in this analysis. The effect size reported among preservice teachers from programs B and E is .149 partial eta squared. According to Cohen (1988), this is considered a large effect size.

Table 4 *Preservice Teacher Overall Scale Mean Scores by Program*

Program	N	Mean
A	158	30.9177
B	26	38.5769
C	68	31.2941
D	111	33.3964
E	105	37.8571
F	55	31.1273

The fourth research question asked, "Do preservice teachers' ratings of preparedness and self-efficacy to meet the needs of diverse learners change after one year of teaching in an elementary school classroom?" There were no statistically significant differences in teachers' ratings of self-efficacy between the preservice and inservice stages in regards to teaching diverse students [ $t(180) = 1.559$ ,  $p = .121$ , two-tailed]. These results suggest that by and large, preservice teachers were able to maintain a stable level of self-efficacy from when they completed their teacher preparation program through their first year of teaching.

While the differences were not significant, descriptive statistics did show a decrease in self-efficacy ratings across all items from the preservice stage to the inservice stage; see *Figure 1*. The mean for preservice teachers was 4.00 or above on all but one item, while the item means for inservice teachers never reached 4.00, capping off at 3.82. The standard deviations on items for inservice teachers were consistently higher than those for preservice teachers. The largest

difference in means between the preservice and inservice stages was for teachers' perceptions on how well they could use community resources to create a multicultural curriculum.

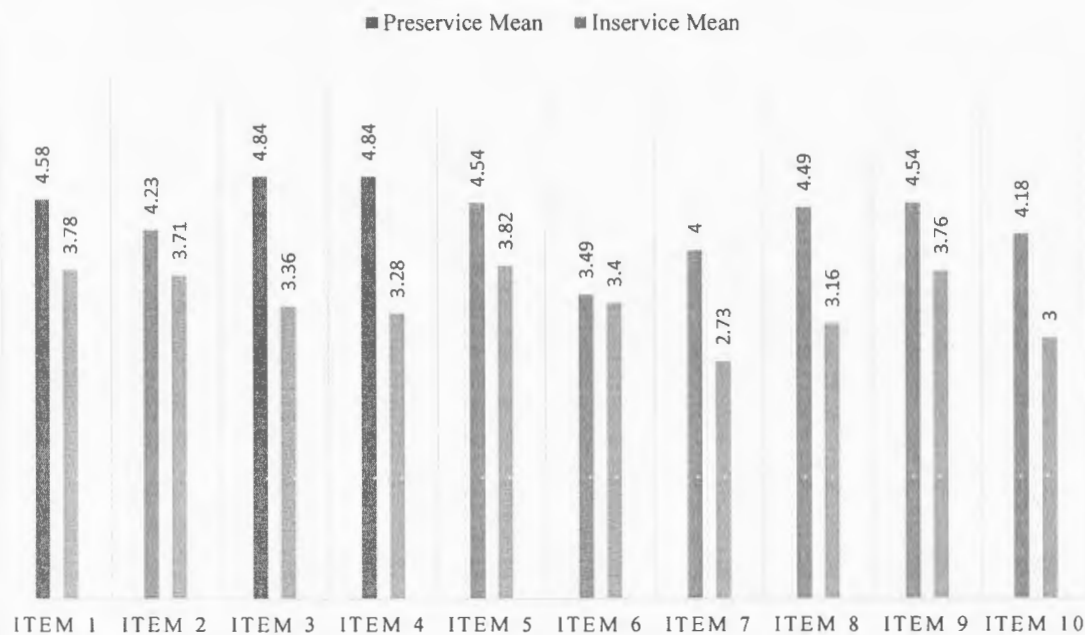


Figure 1. Differences in individual item means for preservice and inservice teachers

### Discussion

At the time that the data were collected, the majority of the teacher preparation programs included in this study did not seem to place particular emphasis on courses that would prepare preservice teachers specifically to meet the instructional/social/emotional demands of diverse students. All programs required at least one course with the purpose of raising general awareness of issues related to diversity in the classroom, but only Programs A and E *required* courses that focused on strategies for meeting the needs of ELLs. While ESL endorsements were generally available and often times encouraged, Program A was unique in requiring that all its preservice teachers work towards an endorsement in that field. Program E was unique in requiring that all preservice teachers take a course on ESL without having chosen any further emphasis in the subject.

Another interesting characteristic of the teacher preparation programs was their handling of student teaching assignments and ensuring preservice teachers had authentic experience with diverse students. The majority of programs had no system in place to ensure that their preservice teachers were provided with opportunities to work with diverse student populations during their culminating field experience. However, Programs A and F did take this issue into account during the student teaching placement process. All of the preservice teachers in Program A were intentionally placed in a classroom with multiple ELLs for the first four weeks of their student teaching semester. Program E organized the schools where they place student teachers into three clusters based on how diverse their student populations are. They then assigned preservice teachers at least one student teaching block in a school from the cluster with highest diversity in student body.

The characteristics of teacher preparation programs observed here will be reviewed further in the discussion of research question three.

The overall scale means for preservice and inservice teachers on the Diversity and Multicultural Perspectives self-efficacy scale were 35.28 and 34.09 respectively. This suggests that, in general, both groups felt “adequately” to “well prepared” to teach diverse students. However, the individual item means give a slightly different picture of both the preservice and inservice teachers’ preparedness to teach diverse learners, and prior researchers have suggested that when drawing conclusions, more weight should be placed on individual item responses than on the overall score (Siwatu, 2007). The preservice and inservice teachers surveyed seemed to feel most efficacious about the more social tasks (e.g. implement strategies to help students from different cultures interact positively with each other, or work with parents and families to help me understand students and support their learning), giving themselves higher ratings on those

items, while the lowest item means were related to more academic tasks most directly related to lesson planning and instruction.

These findings coincide with the findings of Siwatu (2007) and Frye et al. (2010). These self-efficacy ratings may be an indication that courses emphasizing how to effectively teach diverse learners are spending adequate time on the theory and context of multicultural education and are successfully laying the foundation for positive attitudes toward and successful relationships with diverse learners, but they are not spending enough time discussing and modeling HOW to instruct those diverse learners.

While there may be no magic strategies that will work in every situation, and no foolproof lesson plans, preservice teachers do need some concrete ideas for and experience with developing and adapting curriculum to meet the needs of diverse learners. Instructors may consider modeling lessons designed for elementary age students, rather than simply embedding sound strategies in their teaching of college content (Frye et al., 2010; Jiminez-Silva, 2012). For example, the preservice teachers in Frye et al.'s study (2010) were taught a lesson that could be directly transferred into an elementary school classroom. The researchers read aloud two picture books and led the preservice teachers in discussing the multicultural themes of the stories. The book talk was followed by an art project co-taught by the researchers, during which the preservice teachers created quilt blocks containing three or four symbols representing themselves. The preservice teachers who participated in the study, loved this course and could not get enough of the instructional techniques shared. One preservice teacher stated, "I think I have a long way ahead of me to meet my goals...I think we need to spend more time learning ways to become culturally responsive teachers" (p. 18).

Programs B and E produced preservice teachers with higher feelings of self-efficacy than the other programs at the preservice stage. This result then begs the question, what did they do differently that enabled them to produce more confident teachers of diverse learners? According to the descriptive information gathered about the teacher preparation programs, Programs B and E did not have multiple characteristics in common that differed from the other programs. In fact, Program B was very similar to multiple other programs with lower means of statistical significance. It is believed that the high overall self-efficacy rating from Program B may be influenced by the small sample size from that same program; therefore, the focus of the discussion will revolve around Program E in comparison to the other four programs.

The findings from research question two suggested that preservice teachers felt some uncertainty about supporting the needs of language learners, and ours is not the first study that has concluded teachers' self-efficacy is lacking when it comes to teaching ELLs (Jiminez-Silva, 2012). In fact, the work of de Jong and Harper (2005) suggested that most teacher preparation programs were found wanting in explicit attention to the linguistic and cultural needs of ELLs. Program E addressed the concerns of teaching ELLs in its general requirements where many of the other programs did not focus on how to teach ELLs in any required courses. This may explain why preservice teachers from Program E rated themselves higher on the self-efficacy scale than students from Programs C, D and F. However, Program A had even more classes on teaching ELLs than program E, and still had the lowest mean score of any program. This was exactly opposite of the

hypothesis. However, preservice teachers from Program A had at least four weeks in a classroom working with multiple ELLs, whereas pre-service teachers from Program E had no such guaranteed experience. This lack of authentic experience with teaching in a diverse setting

may account for Program E's high self-efficacy mean score: the preservice teachers have had enough classes to feel confident about what to do in a classroom of diverse learners without having had the field experience that revealed the truth that it is "easier said than done". This line of thought indicates that field experience with diverse learners leads to the most realistic views of self-efficacy, and this theory is supported by the fact that the only other program with intentional field placement was Program F, whose overall mean score was the second lowest. Preparation programs must then ask which is more important? Is it producing preservice teachers with exaggerated perceptions of self-efficacy, or preservice teachers with lower, but realistic perceptions of self-efficacy?

While the differences are not statistically significant, descriptive statistics did show a decrease in self-efficacy ratings across all items as teachers moved from the preservice stage to the inservice stage. This indicates that the reality of teaching a class of diverse students affected participants' feelings of self-efficacy more negatively.

### **Conclusion**

#### *Recommendations to Programs*

First, programs should be congratulated for producing teachers who do feel generally prepared and confident about teaching diverse learners. The average self-efficacy scores of each included program were 30.0 or higher; it was from the individual item means that suggestions for improvements can be drawn. In preparing teachers to teach culturally and linguistically diverse students, it is important to include coursework and field experiences that attend to curriculum planning and teaching, giving some specific strategies on how to meet the needs of diverse learners and ELLs especially. Modelling how to teach ELLs rather than simply discussing how may lead to preservice teachers who feel more prepared to instruct diverse students when they

enter the inservice stage. In addition, because the reality of teaching diverse students tends to decrease the self-efficacy of teachers, it is important to provide training and support beyond the preservice stage of teacher education.

### *Limitations*

Program descriptions were gained through interviews with university personnel describing components of each program. These findings are limited in that they represent a retrospective view about program features from the past and programs have changed since these data were gathered so it is hard to know exactly what kind of training these participants received. The viewpoint is also limited to the perspectives of the individuals interviewed. Other university personnel or professors may interpret past program structures differently.

The demographics of the student populations participants encountered in their first year of teaching is also unknown. The numbers of diverse students in their classrooms during the first year of teaching may be a huge factor in teachers' ratings of self-efficacy and it is unaccounted for in this study.

### *Future Research*

Programs have altered requirements regarding diversity education courses since these data were collected, so it would be beneficial to survey preservice teachers experiencing the current system to see if the changes made have led to increased efficacy about teaching tasks related to diverse learners in program graduates. The field could also benefit from a qualitative study of preservice teachers' field experiences during their teacher preparation programs. Interviews before and after teachers' first years in the classroom may give ideas on how to organize field experiences during preparation to reflect the diversity teachers face during their novice years. It would also be interesting to ask preservice and inservice teachers to reflect

on if, when, and how they completed the tasks listed on the diversity and multicultural perspectives subscale during field experiences in their preparation programs or during their novice year in the classroom.



## **Reflective Writing**

1,423 words

As I reflect back on the past eleven months that I have spent writing my honors thesis, I cannot help but see this project as a true culmination of my college education. The process of reading, thinking and writing, then thinking, writing, and reading some more has allowed me to make sense of much more than preservice teachers' self-efficacy about instructing diverse students. I have learned about my own teaching self and reached a more complete understanding of previous research endeavors.

Last January, I had just finished a year-long contract working on a research team that was exploring the effects of computer-based scaffolding on student learning outcomes in STEM education through meta-analysis. As an undergraduate research assistant, I was expected to find my own "piece of the project" to write about—a spin-off of the main paper. I dutifully struggled to develop a meaningful proposal even though I was still trying to figure out what computer-based scaffolding and a meta-analysis even are. I ended up settling on a comparison of the effectiveness of the computer-based scaffolds when individuals were using them versus when groups (partners, small groups and large groups) were using them. The project was extremely interesting but I was definitely not an expert on the topic, and not truly passionate about it either. Even though my proposal was accepted for presentation at the American Education Research Association's annual meeting, and I needed to expand the proposal into a full paper, I still did not want to make it my thesis—the capstone of my college career. I scraped a paper together with lots of help from my very busy research team, presented it in Washington D.C. and returned to focus on my true capstone project. However, by that time I was well into my penultimate semester of college and truly up against the clock.

The first and perhaps biggest challenge for me in writing my honors thesis was picking a topic to study and then narrowing that topic down to a piece small enough to be meaningful. When I was first brainstorming topics, I felt obligated to attach my thesis somehow to the Instructional Technology and Learning Systems (ITLS) Department and the professors who had given me a job for the last year. I thought that it would be interesting to explore the perspective various stakeholders in education (teachers, students, parents, principals, district officers, and state officers) have on technology use in the classroom. The first professor that I talked to about my idea, counseled me that technology was too broad a descriptor to manage; I needed to narrow technology down to a specific type. The second professor that I talked to reminded me that research papers are not written to inform ourselves but the entire field of education on a topic that has not yet been thoroughly explored. I would need to spend hours in the literature before I would be able to identify questions about technology that would be meaningful beyond response to my own curiosity, and I did not have time for that. She also pointed out that surveying or interviewing stakeholders would be very difficult over the summer months and that is the only time I had time to do it. By this point I was thoroughly confused and discouraged and over a topic—technology—about which I was still not passionate.

After wrestling with the technology idea for a couple of weeks, I met with Dr. Clark, my research mentor from my freshman and sophomore years of college. We had been corresponding via e-mail about my ideas and she was concerned about the state of my plans. She directly asked me whether or not I was truly attached to my study on technology. I explained that the answer was no, but that my interests were so general that I had no idea what would be a meaningful study and my timeline left little room for exploration. She then reminded me of my interest in teaching English as a Second Language (ESL) and multicultural education, revisiting

conversations we had had on various occasions in the past due to my taking multiple classes addressing those topics. She then explained that she had preexisting data from a survey on teacher self-efficacy and preparedness that contained an entire section on teaching diverse students. I immediately began to feel more comfortable and excited because we were discussing something that I was familiar with and passionate about: teacher preparedness for the classroom.

This leads me to my first set of advice for future students. First, since an honors thesis is *your* own individual work, do not settle on a topic you are not truly passionate about just to please some professors. Second, find a mentor that knows you and your interests and is okay with you pursuing those rather than his or her own research preferences. Thirdly, do not be afraid to ask your mentor for a starting point. Questions like, what are some gaps in the research literature? and how can I break down this topic into a smaller chunk? will take years to answer on your own. Finally, start brainstorming research topics and reading articles well before your senior year of college. It is no fun to be pressured by the clock and it makes it hard to thoroughly explore all of your options—which are endless!

Once I finally found a direction for my thesis, the next challenge was writing the literature review. I found so many articles that included elements of my topic that I quickly became lost in them. I would spend hours and hours reading and thinking about what I read before adding a sentence or two to my paper. I felt like my progress was excruciatingly slow, but in the process I was able to truly make sense of my project in a way that I had not with any of my previous research endeavors. Because I wrestled with the literature first, when it came time to analyze the data the numbers made sense to me, and as I wrote the literature review for this project, my work on computer-based scaffolding also made more sense to me. Comparing the two projects leads to my second set of advice for future students.

Do your research in order. This means grappling with the literature first individually, and then asking questions about it for clarification. Give yourself time to think and write before you rush to data analysis. When it does come time for the data analysis, do not be afraid to ask questions about the statistics. Look up definitions on the internet, and talk with your mentor to be sure your conclusions are accurate. I spent an entire day by myself pouring over the numbers, doing some simple calculations and writing up my own conclusions. As a result, I understood these numbers in a way that I did not understand the results of any of my previous studies.

One of the most informative and interesting parts of completing my thesis was the opportunity to speak with faculty members from various teacher preparation programs who specialize in multicultural education and ESL. I was exposed to many different perspectives about how and what preservice teachers should be taught about diverse learners. Talking to those professors solidified my own desire to be prepared to teach diverse learners. In fact my entire paper did!

The concept of self-efficacy was new to me at the beginning of this process, but now I see the development of self-efficacy as a vital part of every child's education. I want to be the kind of teacher who gives students many opportunities to succeed, one that validates their ideas and efforts regardless of ability, race or native language. If I can accomplish that, the children in my class will *feel* like good students and will eventually *become* good students and life-long learners. Reading about self-efficacy made me realize that this has been the key to my success: countless adults throughout my life that made me believe I could do whatever the task was and be good at it, and because I believed I could do it and be good, I was.

Writing my honors thesis has been a journey. There have been challenges, but I learned so much in the process that I do not regret it at all. Not only have I been able to theorize about

what kind of program best prepares preservice teachers to teach diverse students, I have discovered myself and who I want to be as a teacher of all students.

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### **Professional Author Bio**

Lindi Andreasen is a student in the Emma Eccles Jones College of Education and Human Services majoring in Elementary Education with emphases in mathematics and teaching English as a Second Language. During her time at Utah State, Lindi has presented and published research on a variety of topics, including students' perceptions of teacher read-aloud, and computer-based scaffolding in STEM education. The highlight of her undergraduate research career was presenting a paper at the American Education Research Association's annual meeting in Washington D.C. In addition, Lindi was the School of Teacher Education and Leadership Undergraduate Research Assistant of the Year for the 2012-2013 school year, recipient of the Edith Bowen Scholarship in 2016, and awarded the Helen B. Cannon Honors Scholarship also in 2016. After graduation, Lindi plans to find a job teaching elementary school and eventually pursue a Masters degree in education in hopes of inspiring young minds to love learning as much as she does or more.